

10th Class 2019

Math (Science)	Group-II	PAPER-II
Time: 20 Minutes	(Objective Type)	Max. Marks: 15

Note: Four possible answers A, B, C and D to each question are given. The choice which you think is correct, fill that circle in front of that question with Marker or Pen ink in the answer-book. Cutting or filling two or more circles will result in zero mark in that question.

1-1- A fraction in which the degree of the numerator is less than the degree of the denominator is called ----.

- (a) An equation (b) An improper fraction
(c) An identity (d) A proper fraction ✓

2- A circle has only one ----.

- (a) Secant (b) Chord
(c) Diameter (d) Centre ✓

3- $\frac{1}{1 + \sin \theta} + \frac{1}{1 - \sin \theta}$:

- (a) $2 \sec^2 \theta$ ✓ (b) $2 \cos^2 \theta$
(c) $\sec^2 \theta$ (d) $\cos \theta$

4- How many common tangents can be drawn for two touching circles?

- (a) 1 (b) 2
(c) 3 ✓ (d) 4

5- The number of methods to solve a quadratic equation is:

- (a) 1 (b) 2
(c) 3 ✓ (d) 4

6- Power set of an empty set is:

- (a) ϕ (b) $\{a\}$
(c) $\{\phi, \{a\}\}$ (d) $\{\phi\}$ ✓

7- The symbol for a triangle is denoted by:

- (a) \angle (b) Δ ✓
(c) \perp (d) \odot

- 8- In a ratio $a : b$, a is called:
(a) Relation (b) Antecedent ✓
(c) Consequent (d) Proportion
- 9- The length of a chord and the radial segment of a circle are congruent, then the central angle made by the chord will be ----.
(a) 30° (b) 45°
(c) 60° ✓ (d) 75°
- 10- If A and B are disjoint sets, then $A \cup B$ is equal to:
(a) A (b) B
(c) ϕ (d) $B \cup A$ ✓
- 11- Two square roots of unity are:
(a) $1, -1$ ✓ (b) $1, \omega$
(c) $1, -\omega$ (d) ω, ω^2
- 12- The third proportional of x^2 and y^2 is:
(a) $\frac{y^2}{x^2}$ (b) x^2y^2
(c) $\frac{y^4}{x^2}$ ✓ (d) $\frac{y^2}{x^4}$
- 13- A histogram is a set of adjacent:
(a) Squares (b) Rectangles ✓
(c) Circles (d) Triangles
- 14- Sum of cube roots of unity is:
(a) 0 ✓ (b) 1
(c) -1 (d) 3
- 15- $\frac{3\pi}{4}$ radians = ----.
(a) 115° (b) 135° ✓
(c) 150° (d) 30°